

WHAT IS CLAIMED IS:

1. A transmitter-receiver circuit comprising:

a band pass filter which extracts a desired frequency component from a receiving signal;

a low pass filter which removes an unnecessary frequency component from a transmitting signal; and

adjustment signal generating means, provided in association with the band pass filter, for generating a frequency adjustment signal, so as to adjust band pass characteristics of the band pass filter,

wherein:

the band pass filter has a first adjustment means for adjusting the band pass characteristics in response to the frequency adjustment signal and,

the low pass filter is provided in a chip in which the band pass filter is provided, and has second adjustment means for adjusting a cut-off frequency of the low pass filter in response to the frequency adjustment signal which is generated in the adjustment signal generating means.

2. The transmitter-receiver circuit according to claim 1, wherein a radio frequency signal transmitted and received is in a 2.4 GHz band and is a signal which uses a spread spectrum technology by frequency hopping.

3. The transmitter-receiver circuit according to

claim 1, wherein both the first adjustment means and the second adjustment means comprises:

a plurality of impedance elements having equivalent functions; and

switching elements which are switched under control of the frequency adjustment signal, so as to selectively operate the impedance elements.

4. The transmitter-receiver circuit according to claim 3, wherein a radio frequency signal transmitted and received is in a 2.4 GHz band and is a signal which uses a spread spectrum technology by frequency hopping.

5. The transmitter-receiver circuit according to claim 3, wherein the impedance elements are resistances.

6. The transmitter-receiver circuit according to claim 5, wherein the resistances are connected in series between an input terminal and an output terminal, and the switching elements short and open terminals of the respective resistors.

7. The transmitter-receiver circuit according to claim 5, wherein a radio frequency signal transmitted and received is in a 2.4 GHz band and is a signal which uses a spread spectrum technology by frequency hopping.

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8. The transmitter-receiver circuit according to claim 3, wherein the impedance elements are capacitors.

9. The transmitter-receiver circuit according to claim 4, wherein the capacitors are connected in parallel between an input terminal and an output terminal, and the switching elements are connected in series with the respective capacitors so as to connect and disconnect the respective capacitors between the input terminal and the output terminal.